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Residential Construction Activity and Financing

DEMAND for housing accommodations has been a major expansionary factor in postwar markets, affecting not only new construction activity and the market for existing housing but also the production of durable consumer goods such as appliances and furnishings needed to equip the newly formed households. This housing demand has been supported by the large sum of liquid savings accumulated during the war, by the high and sustained volume of real income earned in the postwar period, and by the availability of investment funds on favorable terms.

The value of new nonfarm residential construction put in place in 1953 is estimated at $11.7 billion, up somewhat more than 5 percent from 1952 and about 7 percent below the 1950 peak. Over the whole postwar period from the end of 1945 to 1953, approximately $74 billion, or an average of $9.2 billion a year, has been spent on construction of privately owned nonfarm dwelling units—roughly half of the total value of new private construction activity over the period. As may be seen from the chart, new residential units started in 1953 are currently lower than a year ago following an unusually rapid start for the year during the open winter. The total for the year, however, is expected to exceed 1 million units—about the same as in 1952.

In terms of new units, the 8 million constructed since World War II is 1.6 million greater than the number built in the comparable period of building boom of the twenties. In terms of volume of outlays adjusted for price changes, however, the more recent activity was somewhat lower than in the earlier period, the difference primarily reflecting the smaller average size of the units built since World War II.

Factors in the Postwar Housing Market

Housing construction in the postwar period reflected the combined influence of a number of important stimulating factors. Over the greater part of the two decades which followed the housing boom of the twenties, effective demand for new housing was greatly restricted, first by the cyclically low incomes prevailing during the thirties and later by Government restrictions during the war period.

High incomes and more households

With real as well as money income rising sharply during the war years and with liquid resources being steadily accumulated by individuals during that period, a large effective demand existed at the end of World War II. Generally rising incomes since 1945, moreover, provided further stimulus to housing demand.

During this period, an exceptionally high rate of household formation was maintained. The increase in the number of nonfarm households has approximated or exceeded 1 million units in every year from 1947 through 1952, with the average annual rate of increase about 1¼ million units in the 1947–50 period and 1 million units in the more recent period.

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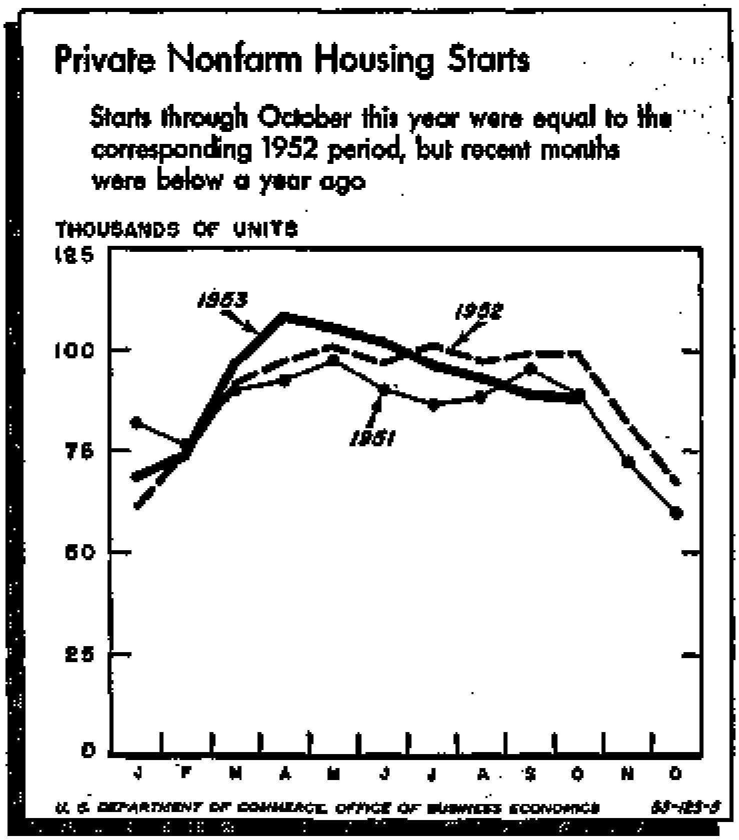
The greater-than-normal increase in households over this period to a considerable extent reflected the "undoubling" of many families forced to live with relatives or friends, or otherwise share existing accommodations, due to the housing shortage in the war and early postwar period. This influence accounted for the setting up of from 200 thousand to 300 thousand new housekeeping units per year in the period from 1947 through 1951. Recent Census Bureau estimates



of the number of subfamilies living with other families suggest that at the present time, the undoubling has largely run its course.

Upgrading of demand

A significant feature of the more recent housing market appears to have been a modest trend toward somewhat larger space in new housing. The continued improvement in income over the postwar years and the growth of families in the younger age groups coupled with the greater availability of housing brought many individuals into the market for more adequate dwellings or induced them to make substantial outlays for additions and alterations.

The change in the more recent period is revealed in statistics on new housing financed with FHA-insured mortgages (under sec. 203 of the National Housing Act):

	Median number of rooms	*Median floor space (square feet)*
1949	4.9	841
1950	4.9	838
1951	5.2	879
1952	5.3	923

Of these, 62 percent had five or more rooms in 1952 compared with 56 percent in 1951, while those with three or more bedrooms rose from 46 percent in 1951 to 59 percent in 1952. The tendency to larger FHA-insured housing is also revealed by the data on floor areas which rose appreciably after 1950. It is not known to what extent the trends revealed by the FHA data are representative of the remainder of the new housing market, although related information suggests upgrading in recent years has been fairly general.

A few points with respect to the influence of this factor in the new housing market are worth noting. Relatively few home owners feel that the house they purchase has all the desirable features which they would wish it to have, particularly when family needs as well as incomes are rising.

The recent increase in the average size of families with children is indicative of such needs. For example, the exceptionally large early postwar baby population is now entering the school age group in large numbers, a development which would possibly highlight the need of more living space on the part of those who bought early in the postwar period.

This need for more space is also operative for families which have recently added a second preschool child. Of the 15 million families with children in 1949, approximately 3 million or one-fifth, had two or more children under the age of six. In 1952, the latest date for which such information is available, almost one-fourth of 16.5 million families with children had two or more preschool children.

These needs would, however, be ineffective in terms of market demand unless financial conditions were favorable. Such requirements are most effective under conditions of rising incomes such as prevailed in recent years; to a large extent this demand is of a type which under less favorable conditions could be postponed until economic conditions warranted the added expense. In this sense the current housing market is perhaps more sensitive to change than it was earlier in the building boom when the backlog of demand built up through the period of low residential construction activity was a major element in the total demand for housing.

A significant proportion of new construction activity in recent years has taken the form of major alterations or additions to existing houses. In substantial degree these expenditures also represent an improvement of living quarters built in the recent period, although major alterations of older structures are an important factor.

Mortgage financing relatively favorable

Over the greater part of the postwar period the demand for housing facilities was made effective to the extent earlier described by the ready availability of mortgage credit, favorable repayment terms, and relatively low interest charges. Probably the most conspicuous new postwar development in mortgage financing was the introduction of loans covered in substantial part by Veterans' Administration guarantee. The primary appeal of these mortgages from the borrower's point of view stemmed from the low initial cash outlays required—frequently with no downpayment—and the relatively long maturity schedules which were often as long as 25 years or more (table 1). For the lender, the principal attraction was the cash guarantee feature of the loan. The FHA-insured loan which was introduced in the mid-thirties was, of course, also available in the postwar period. Terms of financing on such loans have also been liberalized since the end of the war.

These Government-underwritten mortgages—VA and FHA—had their greatest relative influence in 1947 when they accounted for 36 percent of new loans made; the prewar proportion was one-fifth (FHA loans only). Conventional loans have increased as a proportion of the total since 1947. New FHA and VA loans at the present time approximate one-fourth of the total, with the actual volume of guaranteed or insured funds only slightly below the peak reached in 1950.

Table 1 presents distributions of mortgages outstanding by downpayment status and length of term of mortgage for the three different types of loans. As may be seen, one-third of all VA mortgages outstanding in 1950 required no downpayment compared with a proportion of 1 in 10 for conventional loans. At the other extreme, 34 percent of the users of conventional type financing paid more than 40 percent down, whereas only 5 percent of the VA loans were in this category. The buyer using FHA-insured borrowing was, for the most part, in an intermediate position between the conventional and VA mortgagors. It may be noted that a large proportion of the group of FHA mortgages with no downpayment required was composed of borrowers who were, until the latter part of 1950, permitted to take VA second mortgages.

Table 1.—Downpayments and Terms on Outstanding Mortgages, by Type of Financing for Nonfarm Single Family, Owner-Occupied Mortgaged Properties, 1950

[Percent distribution]

Downpayment as a percent of purchase price	Conventional	FHA	VA	Total
0	10	12	33	16
1 to 10	6	18	22	13
11 to 20	14	30	22	18
21 to 30	17	20	12	16
31 to 40	19	12	6	16
41 or more	34	8	5	23
Total	100	100	100	100
Term of mortgage (years)				
On demand	7	0	0	5
Less than 10	35	(1)	2	24
10 to 14	34	2	11	26
15 to 19	16	10	23	18
20 to 24	7	45	44	19
25 or more	1	43	21	11
Total	100	100	100	100

1. Less than 0.5 percent.

Source: U. S. Department of Commerce, Bureau of the Census.

With regard to maturities on mortgages negotiated in 1950 or earlier, the contrast between conventional and Government-underwritten is likewise striking, with longer terms clearly predominating in the latter type loans. It would appear that for conventional loans there has been little change in maturity terms since prewar.

Regulation X

Since 1950, the conditions of borrowing have changed. In good part this reflected the imposition of Regulation X control of mortgage lending in late 1950 as part of a more general credit control program initiated after the outbreak of Korean hostilities. This regulation shortened maturities and raised downpayment requirements—the latter influence being the more important aspect of controls. Whereas in the spring of 1950—before the Korean conflict—over 40 percent of veterans' purchases with VA loans were made with no downpayment, by May 1952 this proportion was less than 5 percent.

On loans which involved some downpayment prior to the controls, Regulation X raised the required percentage of cash by about 5 percentage points on VA mortgages and by possibly an equal amount on non-VA loans. At the same time maturity schedules were reduced, with the maximum term generally held to 25 years on lower priced houses and 20 years on other accommodations.

That Regulation X was not, however, the only new factor in the mortgage market is clear from VA statistics for the period since the removal of Regulation X. "No-downpayment" loans have increased slightly, but they are far less influential than in 1950. VA 100-percent loans currently account for about 7 percent of total purchases made under the program. At the same time average downpayments on VA loans where some cash is required are almost as high as those prevailing under Regulation X.

Recent money market developments

The basic factor in explaining the more recent developments would seem to be found in the changes which have taken place in the general money market, principally changes in interest rates. Long-term interest rates in the early postwar period rose somewhat from a low wartime level. With most of the principal institutions heavily invested in relatively low interest-bearing assets and seeking higher-yield investments, the flow of funds to the mortgage market was very substantial. Given the interest rate structure and the steady substantial flow into long-term saving, even the 4 percent VA and 4½ percent FHA mortgages were attractive.

As may be seen from table 2, long-term interest rates underwent little net movement in the 1948–50 period with the result that the fixed rates established on government-underwritten mortgages remained relatively satisfactory to financial institutions (particularly in the light of the increased flow of savings in the latter part of the period). Even in the relatively stable long-term money market which prevailed in 1948–50, support for VA loans was extended on a substantial scale by the Federal National Mortgage Association ("Fanny May") which over the period increased its holdings of VA loans by $1.2 billion.

Beginning in 1951, however, long-term interest rates increased and after a period of temporary easing in early 1952, again moved upward. Thus, by mid-1953 yields on government bonds stood at 3.1 percent compared with a 2.35 percent average in the 1948–50 period; over the same period, corporate bond yields rose from 3.0 to 3.6 percent.

Under these circumstances, the prevailing tendency among financial institutions was to shift the emphasis in portfolio policies from VA and FHA mortgage loans with rigid interest rates to conventional mortgages and other investments which reflected the rising interest trend. At the same time, support activity of the Federal National Mortgage Association was sharply curtailed. Currently, this agency's remaining funds are largely earmarked for defense housing needs.

VA-FHA interest rates increased

Early this year maximum contract interest on VA and FHA loans was raised by ½ percent and ¼ percent, respectively, and discount charges on FHA and VA loans were explicitly authorized after June 30 by Congressional action. The more recent movement of long-term rates in the open market has also served to ease the market for VA and FHA loans. From a high of 3.3 percent in the early summer months, the yield on the 3¼ percent—30 years-Federal bond issued last April has fallen to 3.0 currently. This market change serves to make government-underwritten mortgages somewhat more attractive to lenders.

There is, however, some lag in the market reaction to these yield changes. This is in part due to caution in the money market based on considerations of the permanency of the change, and in part due to a still considerable "overhang" of mortgage loans already made on the 4 percent-4½ percent basis.

In assessing the demand for government-underwritten mortgages in the near-term, it is of interest to note the potential veteran population which may seek housing under the VA program. For World War II veterans, the law now authorizes VA-type financing until mid-1957. Up to the present time, roughly one-fifth of the 15 million veterans of World War II have exercised their right to VA-guaranteed loans. While many of the remainder will undoubtedly not utilize their option, either because they are already settled in satisfactory quarters or because of financial circumstances, the potential veteran market for new or improved housing accommodations appears still to be substantial. It may also be noted that turnover in armed services personnel is adding to the veteran population. Thus far, the post-World War II veterans who are eligible for VA financing (those in service during the Korean emergency) number approximately 1½ million.

On the basis of postwar house purchases by exservicemen as indicated by the 1950 housing census, it appears that this demand for housing centered in the intermediate price range, from $6,000 to $12,000, with nonveterans purchasing somewhat larger proportions of houses which sold for less than $6,000 or for more than $12,000.

Debt Status of Home Owners

The large volume of residential construction for owner-occupancy purchased in the postwar period brought with it a rapid increase in the mortgage indebtedness of individuals. Mortgage debt on 1–4 family nonfarm homes is currently

Table 2.—Long-Term Interest Rates

[Average percent per annum]

	Corporate bond yields (Moody's)	U. S. Government bond yields	Maximum interest rate[1]	
			FHA[2]	VA
1925	5.47	3.80		
1929	5.21	3.60		
1939	3.77	2.30	5.00	
1947	2.90	2.25	4.50	4.00
1948	3.08	2.44	4.50	4.00
1949	2.90	2.31	4.50	4.00
1950	2.80	2.32	4.25	4.00
1951	3.06	2.57	4.25	4.00
1952	3.19	2.68	4.25	4.00
1953	[3]3.43	[3]2.94	4.50	4.50
November 1953	3.39	2.86	4.50	4.50

1. Rates shown are those prevailing for the greater part of the year.
2. Data are for Section 203 homes. An additional charge of 0.5 percent for FHA insurance premium is made to the home purchaser.
3. Average for January-November.

Source: Moody's Investors Service and the U. S. Treasury Department.

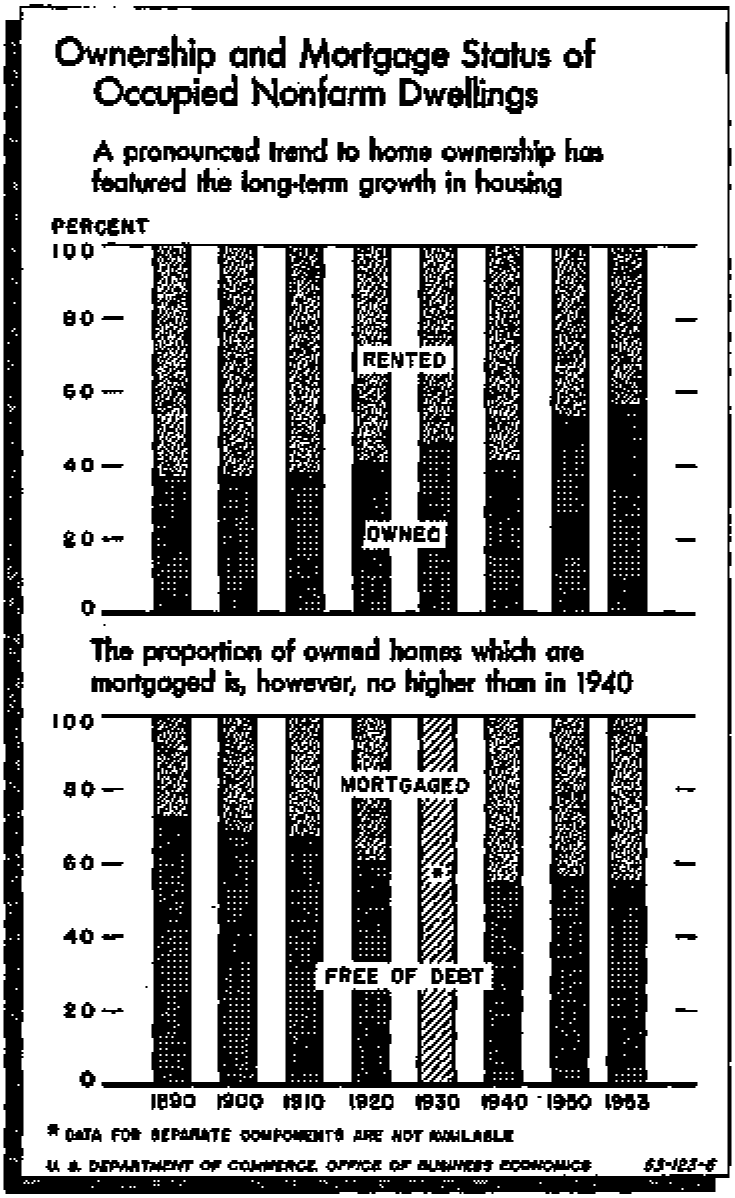
estimated at approximately $65 billion, representing an increase of $6.8 billion this year, and of $46 billion since the end of World War II.

As table 3 brings out, the postwar increase in debt has been largely channeled to institutional lenders, which at the present time hold approximately four-fifths of the total debt outstanding. It may be noted, moreover, that the debt is almost equally divided between Government-underwritten and conventional mortgages, whereas before the war practically nine-tenths of the debt was neither insured nor guaranteed.

In view of the rapid postwar rise in debt, considerable attention has been paid in recent years to the question of its burdensome aspects and the danger that individuals may become so overloaded with long-term contractual payments that the consumer market generally may be adversely affected.

Aggregate relationships

These questions were discussed at some length in the April issue of the SURVEY, where aggregate data were used to analyze both the mortgage and the short-term credit picture of individuals. The overall mortgage situation has not changed greatly since that time. It was pointed out that while the postwar rise in debt was exceptionally rapid, the pace was influenced to a considerable extent by special factors, notably the heavy backlog of housing demand accumulated from the depression period and years of wartime restrictions. This pent-up housing demand was made effective by the greatly improved financial position of individuals and the availability of favorable loan financing in the postwar period.



The accompanying chart illustrates one aspect of the postwar picture. Over the long-term, there has been a pronounced tendency toward home-ownership in preference to rental accommodations. At present 22¾ million units, or 57 percent of all occupied nonfarm dwellings, are owned by their occupants. This compares with the previous peacetime high of somewhat under 50 percent reached in the late twenties. As may be seen in the chart, the proportion in 1940 was approximately 40 percent, a relatively low figure which reflected the impact of the depression of the thirties when the trend to home ownership was temporarily reversed.

With improvements being made in the mortgage market mechanism, and willingness of the population to assume debt on the increase, there was a similar long-term upward tendency in the use of mortgage debt. This tendency was also interrupted in the great depression and later by wartime conditions which restricted house building and consequently new loans, while existing home owners were able to pay off a substantial number of these outstanding mortgages. In view of long-term trends, it is noteworthy that the proportion of mortgaged homes at present—45 percent of owner-occupied units—is no higher than prewar and probably not greatly different from that of the late twenties.

Outstanding mortgage debt currently is equivalent in amount to approximately one-fourth of disposable personal income. This compares with a ratio of 23 percent just prior to World War II and at the end of 1929, and a slightly lower ratio in the midtwenties.

The equity of owners in their home investments, moreover, compares rather favorably with prewar. This is in part a reflection of the rise in housing values associated with the inflationary conditions of the postwar period. For house purchasers who bought in the early postwar period, an appreciable portion of their mortgages has already been repaid since practically all postwar loans have been on a fully amortized basis. Moreover, a sizable portion of the more recent mortgage indebtedness was incurred under the more restrictive Regulation X mortgage terms which required larger downpayments and shorter maturities.

It is roughly estimated that in early 1953 the equity in mortgaged homes amounted to about 55 percent of the market value of the residences—about the same proportion as in 1950, slightly higher than the similar ratio in 1940, and again about equal to the proportion in the twenties.

Service charges related to debt and income

A major consideration in assaying the burden of mortgage debt is the contractual servicing charges which the debtor incurs relative to his debt and income. In the April SURVEY, use was made of a total "repayments" series derived from changes in outstanding debt and new loans made during given periods. In general this method suggested that recent repayments were little, if any, higher relative to income than in the late twenties.

It is of interest to compare typical terms of financing at various periods of time. The following summary would appear to typify the terms that prevailed in the late twenties and those which are common today:

		Post World War II	
	Twenties	VA	Conventional
Amortization feature:			
Fully amortized (percent)	40	100	100
Partially or not amortized (percent)	60	0	0
Downpayment:			
Ratio to amount of loan	½	1/10	⅓–½
Maturity on amortized loan:			
Years	10–15	20–25	10–15
Interest rate on first mortgage:			
Percent per annum	6–7	4–4½	5–6

It should be remembered that these figures apply to mortgaged residences, which currently represent somewhat less than half the total number of owner-occupied units, roughly the same proportion as in the later twenties. The major change indicated by these figures is the decline in importance of the nonamortized loan. Regular payments of principal are typically required at the present time on almost all loans, whereas in the earlier period either unamortized or only partially amortized mortgages were prevalent.

In this connection it might be noted that the current practice of amortizing mortgage debt is more satisfactory in that practically all debtors have been building up their housing equities through regular payments on principal, whereas in the earlier period many mortgagors carried the full mortgage until repayment was called for—often under adverse financial circumstances.

Table 3.—Outstanding Mortgage Debt on 1–4 Family Nonfarm Homes

	Total	Holder		Type of financing	
		Financial institutions[1]	Individual and others	Conventionally financed	Government underwritten
	Billions of dollars				
1939	16.3	9.3	7.0	14.5	1.8
1941	18.4	11.2	7.2	15.4	3.0
1945	18.6	12.2	6.4	14.2	4.3
1950	45.1	35.3	9.8	26.1	19.0
1951	51.9	41.2	10.7	29.0	22.9
1952	58.2	46.9	11.3	32.8	25.4
1953 est.	65.0	52.7	12.3	36.7	28.3
	Percent distribution				
1939	100	57	43	89	11
1941	100	61	39	84	16
1945	100	66	34	77	23
1950	100	78	22	58	42
1951	100	79	21	56	44
1952	100	80	20	56	44
1953 est.	100	81	19	56	44

1. Includes Savings and Loan Associations, Life Insurance Companies, Commercial Banks and Mutual Savings Banks.

Source: Housing and Home Finance Agency, except for 1953 which is estimated by the Office of Business Economics, U. S. Department of Commerce.

Based on the summary, it is also possible to sketch roughly the impact of the changing terms on the amount of, say, annual principal and interest charges per $100 of housing values. Such a calculation suggests that these charges currently would amount to an average of $6.50 per hundred for conventional loans, somewhat higher than in the twenties if no allowance is made for paying off the partially amortized or not amortized loans. The assumption that such loans were gradually reduced, even over a period much more extended than in present-day loans, would make charges on conventional loans approximately equal in the two periods.

The ratio of annual principal and interest paid per $100 of the purchase price of VA financed properties would be lower, around $6 per $100. FHA-type mortgages would typically fall in an intermediate range closer to the VA borrower than to the user of conventional funds.

These are, of course, typical examples; they do not take into account the many possible variations in impact among different groups. For example, to the extent that easier financing conditions in the postwar period have brought lower income groups into the home-owning category, the picture shown above may tend to understate the burden of these fixed outlays on these individuals.

No account is taken, moreover, of changes in other fixed outlays associated with home-ownership, such as real estate taxes and insurance. It may be noted that on FHA-insured mortgages, these other expenses were reported to be about one-fourth of total fixed requirements in 1950, approximately the same ratio as in 1940.

No data are available on the changes over time in the real income of the mortgaged home owner. If, however, it can be assumed that he has fared as well as the average household head, it is clear that as far as today's annual repayment of principal and interest charges is concerned, such charges constitute a smaller relative drain on income than in the late twenties. Measured in 1952 dollars, real income per household has increased from $4,330 in 1929 to $5,215 currently.

Cross Section View

One of the striking features revealed by the census study of housing in 1950 was the recent origin of most of the mortgage debt then outstanding. Four out of five nonfarm mortgaged properties in 1950 were under mortgage contracts made or assumed since 1945. These mortgages accounted for about 90 percent of outstanding debt. Since only one-fourth of the nonfarm mortgage properties existing in 1950 were reported to have been built in the postwar period, it would appear that a very sizable proportion of the homes in existence in 1945 underwent at least one change in mortgage status, either through refinancing or sale, from 1946 to 1950. And since such transactions typically involved an increase in size of loans, it is evident that refinancing of existing structures was one of the major factors in the postwar rise of mortgage debt.

Thus the bulk of the debt was incurred in the postwar period—under conditions in which real estate prices were much above those which had prevailed previously. With the availability of financial data gathered from the 1950 census, considerable additional knowledge has been added on the relation of mortgage debt to various significant economic variables. Some highlights of these data are presented in tables 4 to 7 and are briefly reviewed below.

Equity in homes

Although the great majority of home mortgages in existence in 1950 were of relatively recent origin, a large equity in mortgaged homes had been accumulated by that time, as indicated by the median ratios of outstanding debt to market value shown in table 4.

For the one-half of houses which had mortgages, the median percent of debt to value-of-house was 36 percent;

Table 4.—Outstanding Debt as a Percent of Market Value, by Type of Financing for Nonfarm Single Family, Owner-Occupied Mortgaged Properties, 1950

Median percent of value represented by debt					Percent of properties with debt of 80 percent or more of value			
Market value of property	All types	Conventional	FHA	VA	All types	Conventional	FHA	VA
Under $5,000	38	38	76	67	9	5	47	58
$5,000–$9,999	40	35	72	75	17	3	28	40
$10,000–$11,999	40	27	63	70	12	2	23	27
$12,000–$14,999	37	27	51	64	3	1	6	19
$15,000–$19,999	30	25	42	56	1	1	2	8
$20,000 or more	26	26	34	52	1	1	0	1
All values	36	27	62	70	11	8	26	30

Source: U. S. Department of Commerce, Bureau of the Census.

in other words, one-half of these households had an equity of 64 percent or more in their homes. However, roughly one in nine units carried mortgages equal to at least 80 percent of market value, and hence had equity of less than 20 percent (right-hand section of table).

Table 4 highlights the difference between debtors with conventional type mortgagors and others. Whereas half of the former had outstanding debt which represented 27 percent or more of value, half of the FHA mortgagors had debts equal to 62 percent or more of value, and half of VA mortgagors had debts of 70 percent or more. However, less than one-fourth of the FHA and VA debtors had debt-value ratios as low as 20 percent.

Among owners with VA or FHA mortgages, relatively high debt cases were concentrated among owners of lower and medium price houses. As indicated below, these are typically lower income families, and hence can least afford serious economic reverses. On the other hand, these families generally made use of the more liberal financing terms available in the postwar period and hence had relatively lower servicing charges in relation to their debt. It is also well known that in any general softening of real estate prices, the lower price houses tend to hold up better than those in the upper brackets.

Table 5.—Outstanding Debt and Number of Mortgaged Properties, by Income Groups for Nonfarm Single Family, Owner-Occupied Mortgaged Properties, 1950 [1]

Annual income	Number of properties	Outstanding debt	Average debt per property
	(percent	distribution)	(dollars)
Less than $3,000	27	19	2,710
$3,000 to $5,999	54	56	4,080
$6,000 or more	19	25	5,340
Total	100	100	3,941

1. Income is total money income received during 1949 by primary families and primary individuals.

Source: U. S. Department of Commerce, Bureau of the Census.

Debt-income ratios

From table 5 it is evident that the bulk of mortgage debt is owed by medium and upper income groups. Over half of all mortgaged property owners in 1950 were in the $3,000–$6,000 before-tax income group, and these debtors owed approximately 56 percent of the debt. An additional 25 percent of the debt was owed by owners who earned more than $6,000 in 1949 and who represented one-fifth of all mortgage debtors. At the other end of the scale, one-fifth of the debt was owed by the less-than-$3,000 income group, which in terms of numbers constituted 27 percent of all mortgagors. The relatively low average indebtedness of this group reflects for the most part a generally lower loan value for their properties, due in part to the age of the structures and possibly also to the income status of the occupants. It would appear in general that the proportion of mortgage debt owed by lower income families is somewhat larger than the proportionate volume of income flowing to these groups.

Table 6.—Principal and Interest Payments as a Percent of Income, by Income Groups for Nonfarm Single Family, Owner-Occupied Mortgaged Properties, 1950 [1]

[Percent distribution]

Payment as a percent of income	Income group: Under $3,000	$3,000 to $5,999	$6,000 to $9,999	Total
Under 10	13	42	78	30
10 to 14	21	38	17	29
15 to 19	19	10	4	15
20 to 24	21	6	1	9
25 or more	25	1	(2)	8
Total	100	100	100	100

1. Income is total money income in 1949 of primary families and primary individuals. Families with income of $10,000 or more are excluded.
2. Less than 0.5 percent.

Source: U. S. Department of Commerce, Bureau of the Census.

In analyzing indebtedness and related information in terms of income distributions, several important qualifications should be noted. First, past income studies have shown that when the distributions are based on income as reported to enumerators, there was a general tendency to understate income earned. Hence the figures cited above and those which follow probably tend to overstate the incidence of indebtedness on households.

Secondly, when income is reported for a given time period, such as the year 1949 which was used in the 1950 census tabulations, the relative importance of lower income groups is overstated to the extent that the earner may have worked a part year, and his earnings do not therefore reflect annual rates of pay. A young person graduating from school in June, finding a job and setting up his own household, would be a case in point.

Finally it appears that for a substantial number of low income families, such as those headed by a retired person, income alone is not an adequate measure of relative economic position since such units may and often do plan to make use of accumulated assets.

Servicing requirements

The relative ease or difficulty with which debt is serviced depends for the most part on the relation of servicing charges (principal and interest) to income. Table 6 shows the percent of service charges relative to income by income class. It indicates that high ratios of service charge to income are concentrated among the lower income groups. As just indicated, this reflects in part the existence of a substantial number of low fixed-income families living on pensions and annuities. Practically all of the upper-income and almost all of the middle-income groups paid service charges of less than 20 percent of their incomes.

Table 7.—Principal and Interest Payments as a Percent of Income, by Types of Financing for Nonfarm Single Family, Owner-Occupied Mortgaged Properties, 1950 [1]

[Percent distribution]

Payment as a percent of income	All properties: All types	Conventional	FHA	VA	Properties acquired in 1949 and 1950: All types	Conventional	FHA	VA
Under 10	30	40	47	26	21	22	23	10
10 to 19	44	40	45	62	56	48	68	[illegible]
20 to 29	9	10	5	9	14	16	6	16
30 or more	5	10	3	4	9	14	3	3
Total	100	100	100	100	100	100	100	100

1. Income is total money income in 1949 of primary families and primary individuals. Families with income of $10,000 or more are excluded.

Source: U. S. Department of Commerce, Bureau of the Census.

While income classes are based on pretax income, the pattern of the distributions would not be significantly changed on an after-tax income basis, although understandably the proportions would be up somewhat all along the line. On the other hand, the probable downward bias in reported income tends, as mentioned above, to overstate these charges relative to income. If account is taken of the generally increased incomes prevailing since 1949 (the year for which income information was derived), the distribution would undoubtedly be more favorable than that shown in the table, at least for the 1950 debtor groups. For those who have assumed their indebtedness since 1950, the situation is less clear, but in all probability the addition of this group would not change appreciably the overall picture outlined in table 6.

Almost 40 percent of mortgagors in 1950 were committed to service charges amounting to less than 10 percent of before-tax income; at the other extreme about 1 unit out of 6 with mortgage debt was required to pay more than one-

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the actual unadjusted values to the trend were taken as the factors.

While these factors allow for changes due to periodic variations in demand, for recurring holidays and the average length of month, they do not in many cases take full account of the varying incidence of the number of Saturdays and Sundays in a specific month. A further adjustment was therefore made when statistical tests or external evidence found this factor significant.

The statistical procedure used for this purpose was as follows: The postwar months were segregated into 4 groups; months having four Saturdays and Sundays—which was considered as the "standard" month, months with 4 Saturdays and 5 Sundays, months with 5 Saturdays and 4 Sundays, and months with 5 Saturdays and 5 Sundays. The ratios of the seasonally adjusted sales to the moving average of sales for each month were computed and examined for systematic differences between the four groups of months.

The approximate effects of an extra Saturday and/or Sunday on the volume of sales or billings were measured by setting up functions in which X (or Y) equaled the difference added to or subtracted from the ratio of the "standard" month because of the substitution of an extra Saturday (Sunday) for a week day, and X+Y for an additional Saturday and Sunday. The values for X and Y derived by "lease squares" were then used to determine the number of work days per month. In many series the values of X and Y were not significantly different from zero, and no further adjustment of the seasonally adjusted data was made. In other cases, the seasonally adjusted totals were corrected to eliminate variations due to changes in the number of work days.

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fifth of its income in servicing charges (table 6). The latter groups would of course be most vulnerable to any deterioration of income. As has been pointed out, however, many of these latter families were low- but fixed-income recipients, retired persons on annuities and pensions who would not be as greatly affected by generally adverse economic conditions as the population generally.

Table 7 presents, in the left panel, distributions of all conventional FHA and VA mortgages by ratios of principal and interest payments to income. As may be seen in terms of this ratio, FHA mortgagors were typically in the more favored position with almost half the property owners using less than 10 percent of their incomes for principal and interest payments while fewer than 10 percent had payments equaling or exceeding one-fifth of their incomes. VA mortgagors were found less frequently in the "under-10 percent" group and somewhat more frequently in the "over-20 percent" class. The highest proportion in this latter category was found among conventional borrowers, one-fifth of whom made principal and interest payments representing 20 percent or more of their incomes.

The right-hand section of table 7 is indicative of the conditions in mortgage finance in the 1949–50 period at the time when, generally speaking, most favorable terms were granted. It indicates the substantially higher proportions of servicing charges to income for all types of financing. Since 1950 the situation has changed, not only because of the higher incomes being earned but because of the somewhat tighter conditions introduced first with Regulation X and later with the change in interest rate patterns and the relative availability of Government-underwritten and conventional loans.

Summary

Although recent nonfarm housing starts were somewhat below a year ago, they were still at a rate of 1 million a year, high by almost any previous experience. The average postwar housing unit has been smaller than prewar, reflecting in part the smaller postwar family unit and, in part, a changed structure of demand. The more recent changes in family composition, if maintained, would seem to indicate an appreciable underlying demand for larger accommodations over the near term—at least as long as economic conditions remain generally favorable. On the other hand, the major backlog of demand carried over from the prewar and war periods has been largely filled and there has been some moderation in the growth of new households. Hence, problems of marketing will be more important in determining volume.

Reviewing the outstanding debt picture, it does not appear that the current volume of indebtedness would of itself be a deterrent to high level housing activity. Mortgage debt has risen greatly, but not unduly so when account is taken of relevant economic considerations. The large postwar increase was not surprising in view of events in the thirties and early forties, and the rising income and employment of the postwar period. A part of the population may have undertaken more contractual obligations than its financial condition warranted, but in the overall picture, this segment does not loom particularly large.

Mortgage debt may be expected to increase for some time in the near-term future. The rise may well be more moderate than in the recent past and should present no major difficulties as long as it is primarily associated with an increasing stock of dwelling units and business continues at an active rate. The mortgage situation is, however, one which deserves careful consideration. Although the debt burden may not appear unduly heavy under present financial circumstances, it could be greatly increased if incomes decline. In such an event not only would the housing market be directly affected, but the secondary effects of the relatively high fixed charges would probably be felt in other consumer markets as well.